

What is claimed is:

1 1. A cleaning apparatus to clean alien substance from a substrate
2 provided with a mask pattern prior to wet etching, the apparatus
3 comprising:

4 an ultraviolet cleaner; and

5 a conveyer conveying the substrate to and from the ultraviolet cleaner.

1 2. The apparatus according to claim 1, wherein the conveyer includes:
2 a first conveyer conveying the substrate from a loader to the
3 ultraviolet cleaner; and

4 a second conveyer conveying the substrate from the ultraviolet cleaner
5 to a wet etching unit.

1 3. The apparatus according to claim 1, wherein the ultraviolet cleaner
2 uses eximer ultraviolet light.

1 4. The apparatus according to claim 1, wherein the substrate includes
2 at least one of a gate electrode, a source electrode, a drain electrode, a pixel
3 electrode, and a protective layer.

1 5. The apparatus according to claim 1, wherein the substrate includes
2 at least one of a black matrix and a common electrode.

1 6. A wet etching apparatus to clean alien substances from a substrate
2 with a mask pattern prior to wet etching, the apparatus comprising:

3 an ultraviolet cleaner cleaning the alien substances from the
4 substrate;

5 a conveyer conveying the substrate to and from the ultraviolet cleaner;

6 a loader loading the substrate to and from the ultraviolet cleaner; and

7 an etching unit etching the substrate that is free of the alien
8 substances, the conveyer conveying the substrate from the ultraviolet
9 cleaner into the etching unit.

1 7. The apparatus according to claim 6, wherein the conveyer includes:
2 a first conveyer conveying the substrate from the loader to the
3 ultraviolet cleaner; and
4 a second conveyer conveying the substrate from the ultraviolet cleaner
5 to the etching unit.

1 8. The apparatus according to claim 6, wherein the ultraviolet cleaner
2 is installed at a predetermined area in the loader on the substrate having a
3 plurality of cassettes.

1 9. The apparatus according to claim 6, wherein the conveyer is
2 installed at a predetermined area between the ultraviolet cleaner and the
3 etching unit in the loader.

1 10. The apparatus according to claim 6, wherein the substrate
2 includes at least one of a gate electrode, a source electrode, a drain
3 electrode, a pixel electrode, and a protective layer.

1 11. The apparatus according to claim 6, wherein the substrate
2 includes at least one of a black matrix and a common electrode.

1 12. The apparatus according to claim 6, further comprising:
2 a tilt drain part flowing an etchant on the substrate;
3 a de-ionized rinse part eliminating the etchant on the substrate; and
4 a spin drier drying a de-ionized water.

1 13. A method to clean alien substances from a substrate with a
2 photoresist mask pattern, the method comprising:
3 forming the photoresist mask pattern on the substrate;
4 conveying the substrate to a clean device;
5 exposing the substrate to an ultraviolet light to remove the alien
6 substances; and

conveying the substrate from the cleaning device to an etching station.

14. The method according to claim 13, wherein the ultraviolet light includes eximer ultraviolet light.

15. A method for wet etching comprising:
cleaning a substrate having an alien substances from an ultraviolet cleaner;
conveying the substrate to and from the ultraviolet cleaner;
loading the substrate to a loader; and
etching the substrate in an etching unit.

16. The apparatus according to claim 15, wherein the substrate includes at least one of a gate electrode, a source electrode, a drain electrode, a pixel electrode, and a protective layer.

17. The apparatus according to claim 15, wherein the substrate includes at least one of a black matrix and a common electrode.

18. The apparatus according to claim 15, further comprising:
flowing an etchant on the substrate in a tilt drain part;
eliminating the etchant on the substrate in a de-ionized rinse part having a de-ionized water; and
drying the de-ionized water in a spin drier.